

# Considerations for Numeracy Development at Job Corps Centers

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# Working Definition of Numeracy

The ability to  
conceptualize numbers  
in ways that make reasoning  
and problem solving possible

# Indicators of Numeracy

- The ability to use well-known number facts to find facts of which one is not so sure.
- The ability to judge whether a particular answer is reasonable.
- The ability to approximate numerical answers.
- The ability to decompose and recompose numbers as a means of simplifying calculations (particularly mental calculations).
- The desire to “make sense” of problem situations involving number and quantity.
- Understanding the relative size of numbers and the quantities to which they refer.
- The ability to move flexibly between different representations for numbers (i.e.  $\frac{1}{2}$  or .5).

# The Policy: “Centers shall provide instruction in...mathematics competencies.” (PRH 3.10 Mathematics)

According to the PRH, centers are required to provide instruction in:

- Addition, subtraction, multiplication, and division of whole numbers
- Addition, subtraction, multiplication, and division of decimals
- Addition, subtraction, multiplication, and division of fractions
- Percent and proportion
- Linear, square, and volume measurement
- Pre-algebra
- Simple Plane Geometry
- Consumer Mathematics
- Workplace Mathematics

“I think in math...you need to have the basic skills - add, subtract, multiply and divide.”

(Job Corps Math Teacher, 2005)

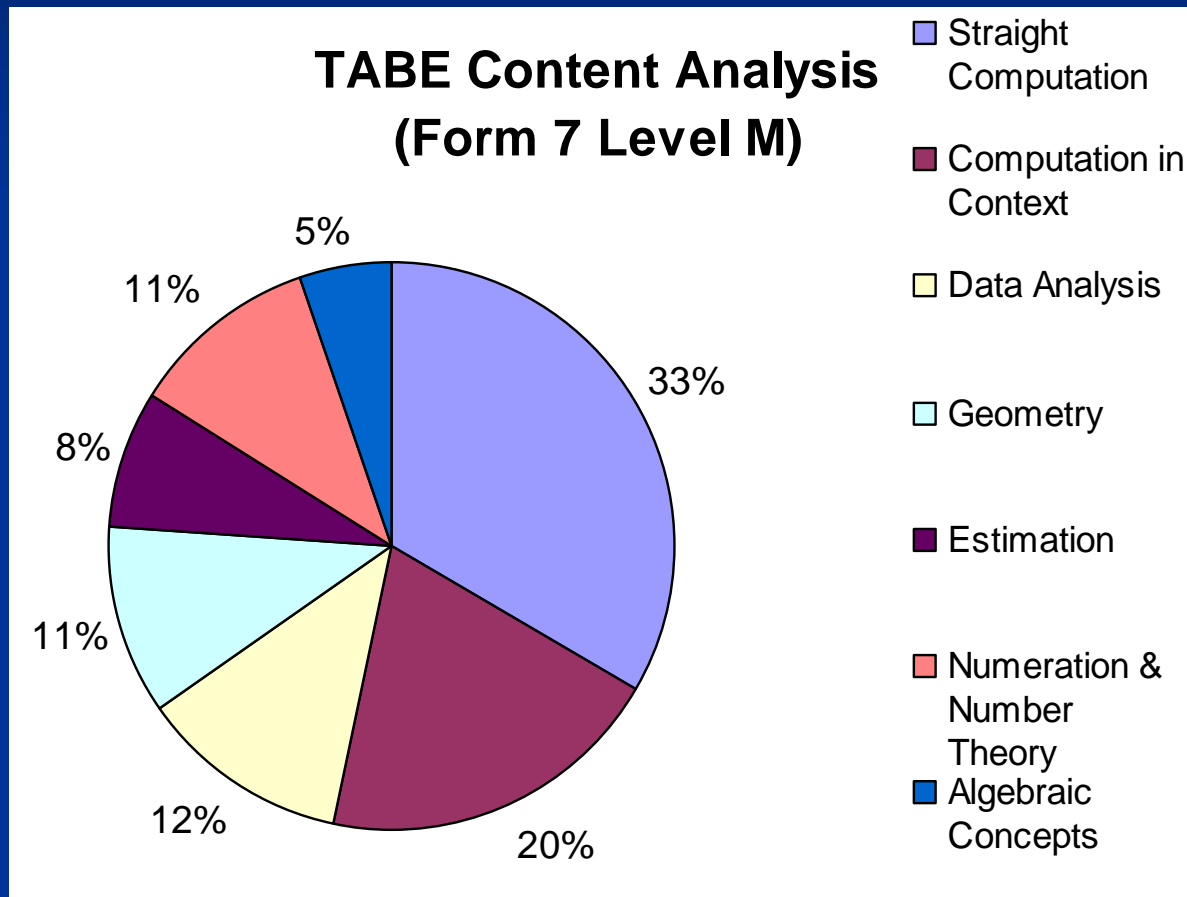
The Policy: “Centers shall assess each student’s level of academic achievement, competency...using the Tests of Adult Basic Education”

The TABE® diagnostic that is given to teachers for planning purposes has fourteen categories of objectives:

- add whole numbers
- subtract whole numbers
- multiply whole numbers
- divide whole numbers etc...

“Numeracy means students know how to add and multiply. The guideline for that is the TABE test” (Job Corps Math Teacher, 2005)

# TABE® Content Analysis





**The Policy: “Centers shall...develop flexible, individualized training schedules tailored to the student’s individualized learning needs.”**

Research indicates that reliance on workbooks and worksheets for the young adult learner:

...promote[s] not a second chance but a second-rate education for students wanting to learn math. It is second rate because the mathematical demands of the world inhabited by adults are not sufficiently emphasized. Nor do the workbooks take into account the diverse characteristics of learners and how their rich understandings and usable skills develop. (Schmitt, 2005 p. 2)